REMARKS

Claims 1-15 are pending in the application.

Claims 1, 2, 9-11 and 15 were rejected.

Claims 3-8 and 12-14 were objected to.

Claims 1 and 9-15 are amended herein.

I. 35 USC §103 Claim Rejections

In the Office Action, claims 1, 2, 9-11 and 15 were rejected under 35 USC §103(a) as being unpatentable over Weaver, Jr. (U.S. Patent No. 5,903,862) in view of Haykin, *Adaptive Filter Theory*. Applicants respectfully traverse that rejection and request reconsideration by the Examiner.

As Applicants described in the specification, tandemed encoder/decoder applications, such as typically occur in calls between two wireless terminals, introduce a level of distortion (from the encoding/decoding process) that may be objectionable to a user. The invention here is directed to an improvement in the signal quality for such a tandemed encoder/decoder application. According to the methodology of Applicants' invention, an adaptive filter is interposed in a tandemed encoder/decoder application between the output of the first decoder and the input of the following encoder. The adaptive filter of the invention operates to provide a spectral adjustment to the output of the first decoder, which adjustment substantially compensates for spectral distortion introduced by the encoding/decoding process.

Although the Weaver reference provides a general teaching in respect to tandemed encoder/decoder operations, and is particularly directed to a method for detecting the occurrence of such tandemed operations, it does not provide any teaching that could reasonably be construed to show or suggest the introduction of an adaptive filter between the

first decoder and the following encoder, as acknowledged by the Office Action. While the Office Action suggests that such a limitation is taught by the secondary reference, Haykin, it is noted that Haykin is simply an academic treatise directed to a teaching of adaptive filter principles generally – primarily an exploration of the mathematical principles underlying operation of adaptive filters, with a limited discussion of the application of such filters. Plainly, nothing in the teaching of Haykin can reasonably be construed to show or even suggest the use of an adaptive filter for making a spectral adjustment to the output of a decoder, much less the application of such an adaptive filter to effect a spectral correction in a tandemed encoder/decoder arrangement.

The Office Action notes a statement in Haykin that "an adaptive filter [can] operate satisfactorily in an unknown environment" and seems to suggest that one skilled in the art, with a general understanding of tandemed encoder/decoder applications (such as taught by Weaver), would apply this "unknown environment" teaching of Haykin to devise the method of Applicants' invention for using an adaptive filter to correct spectral errors occurring in such an tandemed encoder/decoder application. Applicants respectfully submit that such a leap from a general statement that adaptive filters can operate in "unknown environments" to the specific filter application incorporated in Applicants invention (and in the absence of any teaching whatsoever in Haykin related to tandemed encoder/decoder applications) could only occur through the prohibited use of the "hindsight" provided by the Applicant's disclosure as a basis for interpreting the teaching of the prior art. (See *In re Rouffet* (149 F.3d 1350, 1357 (1998)): "use [by the Examiner of] the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention ...would be an illogical and inappropriate process by which to determine patentability").

Moreover, while Applicants believe that the cited references fail even to provide a teaching that could lead one skilled in the art to the invention here, the rejection is also devoid of another critical factor. As a corollary to the prohibition on "hindsight" analysis, the courts have made clear that a §103 obviousness rejection must include a showing of a motivation in the applied reference to use the teaching of that reference (or a combination of references) in a manner to replicate the claimed invention. The Federal Circuit's *Rouffet* decision (*id*), is instructive in this regard.

The court stated:

> Virtually all inventions are combinations of old elements [*citations omitted*]. Therefore an examiner may often find every element of a claimed invention in the prior art. If identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue. Furthermore, rejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be an illogical and inappropriate process by which to determine patentability.
>
> To prevent the use of hindsight based on the invention to defeat patentability of the invention, this court requires the examiner to show a motivation to combine the references that create the case of obviousness. In other words, the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed.

Simply put, there is no teaching in the Weaver reference that could be read to suggest a modification of a tandemed encoder/decoder combination to add an adaptive filter for the

purpose of correcting a spectral distortion inherent in such a combination. Likewise, there is no teaching in Haykin that could be read to suggest an application of an adaptive filter for spectral correction in a tandemed encoder/decoder combination. Accordingly, Applicants respectfully submit one skilled in the art would have found no motivation for combining those references in the manner suggested by the Office Action, and thus that the §103 rejection must fail.

Applicants believe it clear that their invention is patentably distinct from the teaching of Weaver or Haykin, or any combination thereof. However, Applicants have concluded that their independent claims may not clearly reflect the distinctions discussed herein, and have accordingly amended each of their independent claims to further characterize the operation of the adaptive filter to compensate for spectral distortion occurring in the tandemed encoder/decoder. As so amended, Applicants submit that their claims are patentably distinct from the art of record herein.

II. Allowable Subject Matter

Dependent claims 3-8 and 12-14 were objected to as being dependent on a rejected base claim, but were indicated as being allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Applicants thank the Examiner for providing this indication of allowability. However, Applicants believe that each of the independent claims serving as a base claim for these allowable dependent claims, as amended herein, is also allowable over the art of record, for the reasons indicated above. Accordingly, the Applicants have determined not to present any new independent claims at this time.

III. Conclusion

Having fully addressed the Examiner's objections and rejections herein, it is believed that, in view of the preceding amendments and remarks, this application now stands in condition for allowance. Such allowance is respectfully requested.

Please address all correspondence to John A. Ligon, Law Office of John Ligon, P.O. Box 43485, Upper Montclair, NJ 07043. Telephone calls should be made to the undersigned at (973) 509-9192.

Please charge any fees due in respect to this amendment to Deposit Account No. 50-1944.

Respectfully submitted,

John A. Ligon
Reg. No. 35,938
Attorney for Applicant

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LAW OFFICE OF JOHN LIGON
PO BOX 43485
UPPER MONTCLAIR, NJ 07043-0485
973 509-9192
PTO CUSTOMER NO. 30541

I hereby certify that this Response to Office Action is being deposited with the United States Postal Service as First Class Mail, postage prepaid, in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313 on December 10, 2003.

By: _____
John A. Ligon